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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,252

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EXAMINER

SHEDRICK, CHARLES TERRELL

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

08/26/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,252	<b>Applicant(s)</b> LEE, JINSOCK	
	<b>Examiner</b> CHARLES SHEDRICK	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/9/09.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-8,10-15 and 19-34 is/are allowed.
- 6) ☒ Claim(s) 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 4/9/09 have been fully considered but they are not persuasive.

2. **Claims 16-18.**

3. Applicant argues that "Gruhl is fundamentally linked to Downlink Packet Scheduling... In order for the base station to control the transmission of each of the mobile stations, the base station receives "a provisional scheduling information" which the mobile station transmits to the base station and which is described in claim 16 of this application. The invention according to claim 16 of this application achieves Uplink Packet Scheduling when the mobile station has a plurality of data flows and is capable of transmitting a plurality of data flows to a base station. The invention according to claim 16 of this application also achieves, in the Uplink Packet Scheduling, transmission control of each of the data flows and optimization of the control signal necessary for transmission control of each of the data flows. The optimization of the control signal necessary for transmission control of each of the data flows is a problem specific to Uplink Packet Scheduling and is not necessary in Downlink Packet Scheduling. Thus, a person of ordinary skill in the art would readily understand that Gruhl, which is linked to Downlink Packet Scheduling, does not disclose the features of claim 16 which specifically address the optimization of the control signal necessary for transmission control of each of the data flows specific to Uplink Packet Scheduling. Instead, Gruhl discloses a Call Admission Control (Claim 1 and Fig. 8) in a mobile telecommunications network.

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4. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Furthermore, The Examiner is unable to make a distinction between the "provisional information" within the context of the claim language and the provisional information of the prior art given the broadest reasonable interpretation.

### **DETAILED ACTION**

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims **16-18** are rejected under 35 U.S.C. 102(b) as being anticipated by Gruhl et al. US Patent Pub. No.: 2002/0004379 A1, "Gruhl"

Consider **claim 16**, Gruhl teaches A method of control signal transmission for supporting a closed-loop capacity scheduling method used in a system comprising a mobile station capable of transmitting a plurality of data flows to a base station(**e.g., see paragraph 0048 each connection request contains QoS requirements**), any one of a plurality of priority levels being assigned to each of the data flows(**e.g., services operate at different levels based on the QoS as noted in at least paragraph 0040**), wherein the mobile station transmits to the base station a provisional scheduling information which is given by dividing the data flows into groups on the basis of the priority levels of each of the data flows and by producing the provisional scheduling

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information based on a buffer accumulation amount of the data flows of each group(e.g., see **scheduling function in at least paragraph 0068 and 0074-0080**), the base station determines an assigned capacity for the data flow on the basis of the provisional scheduling information(e.g., see **scheduling function in at least paragraph 0068 and 0074-0080**), the base station notifies to the mobile station the assigned capacity and information designating the data flow, and the mobile station transmits the data flow on the basis of the received assigned capacity(e.g., see **scheduling function in at least paragraph 0068 and 0074-0080**).

Consider **claim 17 and as applied to claim 16**, Gruhl teaches wherein, on determining the assigned capacity, the base station carries out the steps of: calculating a required capacity for each of the data flows from the provisional scheduling information (e.g., **the calculations are based on the required QoS as noted in at least paragraph 0072**), and determining, in case where a total of the required capacity exceeds a usable capacity, an allowable capacity smaller than the required capacity on the basis of the priority level(e.g., **a call can be degraded as noted in at least paragraphs 0050 0061 -0063**).

Consider **claim 18 and as applied to claim 16**, Gruhl teaches wherein the assigned capacity notified from the base station to the mobile station comprises flow identification information of each of the data flows and an allowable capacity usable for the data flow (e.g., **in conjunction with service descriptors as noted in at least paragraphs 0051-0054** ).

*Allowable Subject Matter*

5. Claims 1, 3-8, 10-15, and 19-34 are allowed.

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6. The following is a statement of reasons for the indication of allowable subject matter: With respect to the Applicant's remarks dated 4/9/09, the prior art of record does not specifically teach dividing the data flows with reference to the priority and QoS into a plurality of groups; and individually pointing to the plurality of groups by sub-pointers to obtain the modified combination of capacities.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLES SHEDRICK whose telephone number is (571)272-8621. The examiner can normally be reached on Monday thru Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles Shedrick/  
Examiner, Art Unit 2617

/Lester Kincaid/  
Supervisory Patent Examiner, Art Unit 2617